

Notice of Allowability

Application No.

09/820,370

Examiner

Olabode Akintola

Applicant(s)

SCHMIDT, CRAIG

Art Unit

3691

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment file on October 29, 2007.
2. ☐ The allowed claim(s) is/are 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Laureanti on 11/21/07.

Claims

1. (Previously presented) A method for optimizing prices at which products are sold in an automated marketplace, comprising:

- generating a matrix of all possible buyers and sellers for a product;
- for each buyer, providing a buyer's reserve price corresponding to a maximum purchase price for each possible seller;
- for each seller, providing a seller's reserve price corresponding to a minimum sales price for each possible buyer;
- calculating a utility value for each pairing of buyers and sellers, wherein the utility value is a linear utility value corresponding to the difference between each buyer's reserve price and each seller's reserve price;
- selecting a unique pairing of buyers and sellers that maximizes total utility;

calculating a buyer optimal allocation of the total utility for all buyers and sellers in a stable manner;

calculating a seller optimal allocation of the total utility for all buyers and sellers in a stable manner; and

for each pair in the unique pairing, selecting a transaction price that allocates the utility between that seller and that buyer (see Col. 4, lines 10-27)

2. (Previously presented) The method of claim 1, wherein providing the buyers reserve price for each buyer comprises:

for each buyer, providing the buyers reserve price corresponding to a maximum purchase price for each possible seller, wherein at least one buyer limits the sellers to which the buyer agrees to be matched to a subset less than all possible.

3. (Previously presented) The method of claim 2, wherein each buyer sets the buyer's reserve price for each possible seller with whom that buyer agrees to be matched, and wherein the buyer's reserve price can be different for each such seller.

4. (Previously presented) The method of claim 1, wherein providing the seller's reserve price for each seller comprises:

for each buyer, providing the seller's reserve price corresponding to a minimum sales price for each possible buyer, wherein at least one seller limits the buyers to which the seller agrees to be matched to a subset less than all possible sellers

5. (Previously presented) The method of claim 4, wherein each seller sets a particular seller's reserve price for each possible buyer with whom that seller agrees to be matched, and wherein the particular seller's reserve price can be different for each such buyer.
6. (Previously presented) The method of claim 1, wherein the utility value calculated for each pairing of a buyer and a seller is a difference between that buyers reserve price and that sellers reserve price.
7. (Previously presented) The method of claim 1, wherein the step of selecting a transaction price comprises the steps of:
- providing a proportion value between 0 and 1; and
 - selecting a transaction price which is proportional to a difference between the optimized seller utility and the optimized buyer utility equal to the proportion value.
8. (Original) The method of claim 7, wherein the proportion value equals 0.5.
9. (Original) The method of claim 7, wherein the proportion value is less than 0.5.
10. (Original) The method of claim 7, wherein the proportion value is greater than 0.5.

11. (Previously presented) The method of claim 1, further comprising conducting product transactions at the selected transaction prices.

12. (Original) The method of claim 1, wherein the buyers and sellers provide their respective reserve prices by communicating them to a central marketplace server.

13. (Currently amended) A system for matching buyers and sellers in an automated marketplace, comprising:

- a plurality of buyers for a product;

- a plurality of sellers for the product;

- a central system containing a matrix of all possible buyers and sellers for the product;

- means for each buyer to select a buyer's reserve price representing a maximum purchase price, wherein the buyer's reserve price is selected for each possible seller of the product;

- means for each seller to select a seller's reserve price representing a minimum selling price, wherein the seller's reserve price is selected for each possible buyer of the product;

- an optimizer within the central system for assigning a utility value, wherein the utility value is a linear utility value corresponding to the difference between each buyer's reserve price and each seller's reserve price, to pairings between buyers and sellers, and calculating a set of such pairings to optimize a global utility value; and

- means within the central system for assigning buyers and sellers according to the calculated optimized set of pairings, and assigning a stable transaction price for each pairing between the buyer's and seller's reserves for that pairing.

14. (Currently amended) The system of claim 13, wherein each buyer ~~set's~~ sets a different buyer's reserve price for each possible seller.

15. (Currently amended) The system of claim 13, wherein each seller ~~set's~~ sets a different seller's reserve price for each buyer.

16. (Original) The system of claim 13, wherein the assigned utility value for each pairing is equal to a difference in the buyer's reserve and the seller's reserve for that pairing.

Allowable Subject Matter

Claims 1-16 are allowed.

Examiner's Statement of Reason for allowance

The following is a statement of reasons for the indication of allowable subject matter:

The most relevant reference is the *Lupien* reference.

The *Lupien* reference teaches matching buy and sell orders based upon a satisfaction and quantity profiles of individual buyers and sellers. Each trader (buyer or seller) creates a satisfaction density profile that indicates the trader's willingness to trade a size order at a particular price. *Lupien* also discloses that traders can assign satisfaction density value ranging

from zero to one, with zero representing no satisfaction (i.e., under no circumstance will the trader be will to trade a quantity at a particular price (col. 5, lines 45 through col. 6, line 37).

Lupien fails to disclose calculating a utility value for each pairing of buyers and sellers, wherein the utility value is a linear utility value corresponding to the difference between each buyer's reserve price and each seller's reserve price.

Updated searches revealed no references that disclosed the claimed invention, nor were any further references identified which could be reasonable combined with *Lupien*.

For this reason, claims 1 and 13 are deemed to be allowable over prior art of record and claims 2-12 and 14-16 are allowed by dependency.

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olabode Akintola whose telephone number is 571-272-3629. The examiner can normally be reached on M-F 8:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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HANI M. KAZIMI
PRIMARY EXAMINER